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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,332	08/08/2001	John Charles DeBraal	0011-0377P	1960

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EXAMINER

BRUENJES, CHRISTOPHER P

ART UNIT PAPER NUMBER

1772

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,332

Applicant(s)

DEBRAAL ET AL.

Examiner

Christopher P Bruenjes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 17-21 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 17-21 and 23-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11. 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

WITHDRAWN REJECTIONS

2. The 35 U.S.C. 112 rejection of claim 27 of record in Paper #10, Pages 3-4 Paragraph 5 has been withdrawn due to Applicant's amendment in Paper #12.

3. The 35 U.S.C. 103 rejections of claims 1-10, 17-21, and 23-27 over Neale et al of record in Paper #10, Pages 4-6 Paragraph 6 have been withdrawn due to Applicant's arguments in Paper #12.

4. The 35 U.S.C. 103 rejections of claims 4, 9, 20, and 23 over Iioka of record in Paper #10, Pages 6-7 Paragraph 7 have been withdrawn due to Applicant's arguments in Paper #12.

NEW REJECTIONS

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Fumel et al (USPN 3,988,521).

Fumel et al anticipate an insulated beverage container stock material forming a insulated beverage container having an a container wall having a side portion enclosing a beverage containing space, and having an innermost surface and an outermost surface and a bottom portion engaging said container wall along said side portion (see abstract and Figures 1 and 2) wherein said container wall or stock material includes a paper stock layer or first substrate (reference number 20, Figure 2 and col.2, 1.41-51) having an interior surface and an exterior surface, said exterior surface of said paper stock layer forming the outermost surface of said stock material or the outermost surface of the container wall (col.8, 1.37-50). A foam layer or high polymer layer (reference number 21, Figure 2 and col.3, 1.52-60) is disposed along the interior surface of the paper stock layer and forms the innermost surface of said container

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wall (col.8, 1.37-50). Sandwiched between said paper layer and said foam layer and in direct contact with said foam layer is an adhesive composition (reference number 22, Figure 2). The adhesive composition is a thin polyethylene film layer comprising a copolymer of ethylene and normal lower alpha-olefins such as propylene, butene-1, and pentene-1 (col.4, 1.45-56). Linear low density polyethylene is a copolymer of ethylene and a lower alpha-olefin, and the specification on page 11 paragraph 46 defines the PE layer as a high, low, or linear low density polyethylene. The thickness of the paper layer is 3 to about 20 mils (col.3, 1.45-51).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for

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establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 4-6, 8-9, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fumel et al (USPN 3,988,521) in view of Geddes et al (USPN 6,030,476).

Fumel et al teach all that is claimed in claim 1 as shown above and teaches that the foam layer is laminated foam because it is foam that is adhesively sealed to another layer, but fails to explicitly teach that the foam layer is formed from high, low, or liner low density polyethylene or oriented polypropylene or that a polyethylene film layer is formed on the inner surface of the foam layer. However, Geddes et al teach that although a foamed layer for heat-insulated beverage containers are formed from many different thermoplastic synthetic resins including low to medium density polymers such as polyolefins, polyvinyl chloride, polystyrene, polyester, nylon and other similar types of material, polyethylene is preferred as shown by the examples using polyethylene (col.4, l. 61-67). Furthermore, Geddes et al teaches that polystyrene foam, which is the foam used in Fumel

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et al is often not sufficiently smooth (col.1, 1.35-37). One of ordinary skill in the art would have recognized that polyethylene foam is substituted for polystyrene foam depending on the intended end results of the foam layer.

Regarding the addition of a polyethylene film layer on the inner surface of the stock material or container wall, Geddes et al teach that a film (reference number 20, Figure 1) of high density polyethylene is formed on the inner surface of the container or stock material in order to prevent the penetration of the liquid contents into the wall of the container or stock material (col.4, 1.30-35). One of ordinary skill in the art would have recognized that a film of high density polyethylene is formed on the inner surface of the container or stock material in order to prevent the penetration of the liquid contents in to the wall of the container or stock material, especially the paper layer, as taught by Geddes et al.

Regarding claim 6, Fumel et al teaches that the foam layer is adhered to the paper stock layer via adhesive, and lamination is uniting of two layers via adhesive or other means, as defined by Webster's Dictionary.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to substitute polyethylene foam for polystyrene foam

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depending on the intended end result as taught by Geddes et al, and it would have been obvious to add a film of high density polyethylene to the inner surface of the container or stock material of Fumel et al, in order to make the container or stock material impervious to the liquid contents in the beverage containing space, as taught by Geddes et al.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fumel et al (USPN 3,988,521).

Fumel et al teach all that is claimed in claim 1 as shown above, but fail to explicitly teach that more than one insulating layer is added interior of the paper stock layer. However, Fumel et al teach that it is understood by those skilled in the art after reading the present disclosure that any number of layers of high polymer sheets or insulating sheets can be so laminated to other materials and that a wide variety of useful articles can thereby be produced (col.2, 1.36-40). Furthermore, when the extra insulating coating is the same material as the foam layer, the foam layer and insulating coating layer are the same as one thick foam layer. Fumel et al also teach that when a foam material is utilized as the high polymer sheet, its thickness can be selected to provide any desired insulating properties (col.3, 1.52-58). One of ordinary

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skill in the art would have recognized that another insulating coating or foam layer is added between said foam layer and said paper stock layer depending on the desired insulating properties, as taught by Fumel et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to add another insulating coating or foam layer between said foam layer and said paper stock layer of Fumel et al in order to increase the insulating properties as desired, as taught by Fumel et al.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fumel et al (USPN 3,988,521) in view of Geddes et al (USPN 6,030,476).

Fumel et al and Geddes et al taken as a whole teach all that is claimed in claim 8, but fail to explicitly teach that more than one insulating layer is added interior of the paper stock layer. However, Fumel et al teach that it is understood by those skilled in the art after reading the present disclosure that any number of layers of high polymer sheets or insulating sheets can be so laminated to other materials and that a wide variety of useful articles can thereby be produced (col.2, 1.36-40). Furthermore, when the extra insulating coating is the same

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material as the foam layer, the foam layer and insulating coating layer are the same as one thick foam layer. Fumel et al also teach that when a foam material is utilized as the high polymer sheet, its thickness can be selected to provide any desired insulating properties (col.3, 1.52-58). One of ordinary skill in the art would have recognized that another insulating coating or foam layer is added between said foam layer and said paper stock layer depending on the desired insulating properties, as taught by Fumel et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to add another insulating coating or foam layer between said foam layer and said paper stock layer of Fumel et al and Geddes et al in order to increase the insulating properties as desired, as taught by Fumel et al.

9. Claims 17-19 and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over Fumel et al (USPN 3,988,521) in view of Neale et al (USPN 6,277,454).

Fumel et al teach an insulated beverage container stock material wherein said stock material includes a paper stock layer or first substrate (reference number 20, Figure 2 and col.2, 1.41-51) having an interior surface and an exterior

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surface, said exterior surface of said paper stock layer forming the outermost surface of said stock material (col.8, 1.37-50).

A foam layer or high polymer layer (reference number 21, Figure 2 and col.3, 1.52-60) is disposed along the interior surface of the paper stock layer and forms the innermost surface of said stock material (col.8, 1.37-50). Sandwiched between said paper layer and said foam layer and in direct contact with said foam layer is an adhesive composition (reference number 22, Figure 2). The adhesive composition is a thin polyethylene film layer comprising a copolymer of ethylene and normal lower alpha-olefins such as propylene, butene-1, and pentene-1 (col.4, 1.45-56). Linear low density polyethylene is a copolymer of ethylene and a lower alpha-olefin, and the specification on page 11 paragraph 46 defines the PE layer as a high, low, or linear low density polyethylene. The thickness of the paper layer is 3 to about 20 mils (col.3, 1.45-51).

Fumel et al fail to explicitly teach that the stock material is used to form an insulated beverage container sleeve. However, Neale et al teach that insulated beverage container stock material or blanks are used to form either beverage containers or beverage container sleeves, and that the sleeve is formed in the same way as the beverage container, except no bottom is provided and it is shaped in a frusto-cone which may

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be placed over a conventional cup (col.2, 1.62-67 and col.3, 1.1-5). One of ordinary skill in the art would have recognized that the insulated beverage container stock material would be formed into a sleeve in order to provide insulation to the vast inventory of conventional cups or containers (col.3, 1.3-5), as taught by Neale et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to form the insulated beverage container stock material of Fumel et al into a insulated beverage container sleeve, in order to provide insulation to the vase inventory of conventional cups or containers as taught by Neale et al.

10. Claims 20-21 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fumel et al (USPN 3,988,521) in view of Geddes et al (USPN 6,030,476), and further in view of Neale et al (USPN 6,277,454).

Fumel et al teach all that is shown above in the 35 U.S.C. 102 rejection and teaches that the foam layer is laminated foam because it is foam that is adhesively sealed to another layer, but fails to explicitly teach that the foam layer is formed from high, low, or liner low density polyethylene or oriented polypropylene or that a polyethylene film layer is formed on the

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inner surface of the foam layer. However, Geddes et al teach that although a foamed layer for heat-insulated beverage containers are formed from many different thermoplastic synthetic resins including low to medium density polymers such as polyolefins, polyvinyl chloride, polystyrene, polyester, nylon and other similar types of material, polyethylene is preferred as shown by the examples using polyethylene (col.4, 1.61-67). Furthermore, Geddes et al teaches that polystyrene foam, which is the foam used in Fumel et al is often not sufficiently smooth (col.1, 1.35-37). One of ordinary skill in the art would have recognized that polyethylene foam is substituted for polystyrene foam depending on the intended end results of the foam layer.

Regarding the addition of a polyethylene film layer on the inner surface of the stock material or container wall, Geddes et al teach that a film (reference number 20, Figure 1) of high density polyethylene is formed on the inner surface of the container or stock material in order to prevent the penetration of the liquid contents into the wall of the container or stock material (col.4, 1.30-35). One of ordinary skill in the art would have recognized that a film of high density polyethylene is formed on the inner surface of the container or stock material in order to prevent the penetration of the liquid

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contents in to the wall of the container or stock material, especially the paper layer, as taught by Geddes et al.

Regarding claim 6, Fumel et al teaches that the foam layer is adhered to the paper stock layer via adhesive, and lamination is uniting of two layers via adhesive or other means, as defined by Webster's Dictionary.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to substitute polyethylene foam for polystyrene foam depending on the intended end result as taught by Geddes et al, and it would have been obvious to add a film of high density polyethylene to the inner surface of the container or stock material of Fumel et al, in order to make the container or stock material impervious to the liquid contents in the beverage containing space, as taught by Geddes et al.

Regarding claim 23, whether the foam layer is extruded or laminated to the paper layer receives little patentable weight because both processes form a paper layer bonded to a foam layer and the combination of the two layers perform the same function no matter which process is used. Therefore, extruded foam and laminated foam are considered equivalent foams, and the foam still has the same properties with regard to heat-insulation, no matter which process is used to bond the foam and paper layers.

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Fumel et al and Geddes et al combined fail to teach that the insulated beverage container stock material is used to form a sleeve. However, Neale et al teach that insulated beverage container stock material or blanks are used to form either beverage containers or beverage container sleeves, and that the sleeve is formed in the same way as the beverage container, except no bottom is provided and it is shaped in a frusto-cone which may be placed over a conventional cup (col.2, 1.62-67 and col.3, 1.1-5). One of ordinary skill in the art would have recognized that the insulated beverage container stock material would be formed into a sleeve in order to provide insulation to the vast inventory of conventional cups or containers (col.3, 1.3-5), as taught by Neale et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to form the insulated beverage container stock material, of Fumel et al and Geddes et al combined, into an insulated beverage container sleeve, in order to provide insulation to the vast inventory of conventional cups or containers as taught by Neale et al.

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ANSWERS TO APPLICANT'S ARGUMENTS

11. Applicant's arguments regarding the 35 U.S.C. 112 rejection of claim 27 of record have been considered but are moot since the rejection has been withdrawn.

12. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 1-10, 17-21, and 23-27 over Neale et al have been considered but are moot since the rejections have been withdrawn.

13. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 4, 9, 20-21, and 23 over Neale et al in view of Iioka have been considered but are moot since the rejections have been withdrawn.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shelby (USPN 5,445,315).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Bruenjes whose telephone number is 703-305-3440.

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The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher P Bruenjes
Examiner
Art Unit 1772

CPB 
November 21, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 11/24/03